California ISO

Market Simulation Structured Scenarios

Automated Dispatch System (ADS) Replacement Project

Version 1.0

05/29/2020

Location of Document

http://www.caiso.com/informed/Pages/ReleasePlanning/Default.aspx

Revision History

Date	Version	Description	Author
05/29/2020	1.0	Initial Posting for Market Participant Review and feedback	Market Simulation Team

Table of Contents

1. Introduction

The objective of this document is to provide information for ISO Market Participants to participate in the Structured Market Simulation activities for the Automated Dispatch System (ADS) Replacement Project. For the scope of this initiative and implementation, please refer to the project Business Requirements Specification (BRS) on the Release Planning site – (Link)

2. Market Simulation Structured Scenarios

2.1 High Level Overview

The identified scenarios will be executed during the market simulation to demonstrate functionality for Market Participant understanding and validation.

2.2 Structured Scenarios Conditions and Setup

The following additional setup will be used by the ISO during the scenario execution.

Market Participant pre-Market Simulation Actions
1. MP's will need to register their request with the ISO to participate in the ADS Replacement project simulation via the MarketSim@caiso.com mailbox.
2. Identify at least two (2) existing resources that are certified for ancillary services for the unannounced Ancillary Services Test (scenario #3). The ISO will utilize one of the resources to demonstrate the functionality.

Please submit your request and any additional information identified above by July 3, 2020.

ISO pre-Market Simulation Activities

1. The ISO will setup the Market Simulation environment and publish a market simulation schedule to support the following scenarios outlined in more detail in section 2.3 below.

   Market-related enhancements:
   - Scenario #1 – Validate Flex Ramp Awards and 15 minute inter-tie resource schedules.
   - Scenario #2 – Validate optimized economic dispatch of Non-Spin A/S resources during ISO RTCD.
   - Scenario #3 – Validate automation of unannounced A/S testing

2.3 Structured Scenarios

Scenario Execution Trade Date(s): TBD	
Scenario #1	Validate Flex Ramp Awards and 15 Min inter-tie resource schedules.
Description	Demonstrate UI and API changes for Flex Ramp Awards and 15 Min inter-tie resource schedules in the ADS.
Expected System Outcome	Scheduling Coordinators can view and retrieve Flex Ramping Awards and 15 Min inter-tie resource schedules from ADS
Anticipated Settlement Outcome	N/A – No settlement impacts
Details:	
ISO Actions	The Market Simulation Team to: 1. Run RTM to produce Flex Ramp Awards (FRU, FRD) and 15 Min inter-tie resource schedules for broadcasting to ADS
ISO Market Participant Actions	MPs to use the ADS UI and/or API to: 1. Receive RTD binding FRU & FRD ramping awards for Generator & Tie Generator resources 2. Receive FMM binding energy dispatches (schedules) and bid type for 15 Min intertie resources. 3. Receive FMM binding FRU & FRD ramping awards
EIM Market Participant Actions	EIM entities to observe flex ramp awards in ADS.

Scenario Execution Trade Date(s): TBD	
Scenario #2	Validate optimized economic dispatch of Non-Spin A/S resources during ISO RTCD
Description	Demonstrate optimized economic unit commitment for non-spinning reserve resources in ISO contingency dispatch.
Expected System Outcome	Scheduling Coordinators are able to view RTCD start-up commitments for NSPIN resources in ADS.
Anticipated Settlement Outcome	TBD
Details:	
ISO Actions	The Market Simulation Team to: 1. Set "Include Off-line NSPIN flag" in RTCD 2. Run ISO RTCD including off-line resources with awarded non-spinning reserve. 3. Verify RTCD start-up instructions & commitments sent to ADS
ISO Market Participant Actions	Scheduling Coordinators to use the ADS UI and/or API to: 1. Validate RTCD-originated start-up instructions in ADS for NSPIN resources
EIM Market Participant Actions	No EIM impacts.

Scenario Execution Trade Date(s): TBD	
Scenario #3	Validate the Automation of Unannounced A/S Testing
Description	Demonstrate the automation of unannounced A/S Test functionality in ADS.
Expected System Outcome	Scheduling Coordinators are able to receive unannounced ASTEST instructions and view new pop up/alarm in ADS. Scheduling Coordinators are able to view CMRI report for expected energy for an ASTEST.
Anticipated Settlement Outcome	The settlements process will receive the expected energy instruction type = ASTEST and process the AS instructions the same as current manual notifications.
Details:	
ISO Actions	The Market Simulation Team to 1. Initiate an Unannounced A/S Test instruction for designated resources in real-time market.
ISO Market Participant Actions	Scheduling Coordinators to use the ADS UI and/or API to: 1. Validate alarm/pop up for unannounced ASTEST instruction is available 2. Validate unannounced A/S test results in ADS Scheduling Coordinators to use CMRI to: 1. Validate ASTEST expected energy in CMRI
EIM Market Participant Actions	N/A

3. ISO Market Simulation Contact

Please contact MarketSim@caiso.com if you have any questions or concerns regarding these scenarios.